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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,971	09/04/2003	Peter P. Altice JR.	M4065,0713/P713	4469

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EXAMINER
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MARIAM, DANIEL G

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/653,971

Applicant(s)

ALTICE ET AL.

Examiner

DANIEL G. MARIAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/29/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 recites the limitation "determining light intensity by comparing saturation points of said second pixels". It is unclear whether the light intensity is determined for the second pixels per se or a global light intensity is determined by comparing saturation points of said second pixels? Please clarify.

Since claims 13-18 depend on claim 12, they are also rejected under 35 U.S.C. 112, second paragraph, for the same reason set forth above for claim 12.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6-8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Torok, et al (5,489,994).

With regard to claim 1, Toro, et al discloses 1, an imager apparatus (CCD image sensor, See Fig. 1) comprising: a pixel array having an active imaging area (i.e., selected scanning areas.

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For example, the scanning of pixels areas with a number 1 which indeed makes the others non-active), and a non-active area, i.e., non-scanning areas, said active area and non-active area being defined by an opaque mask, i.e., mask 30, provided over the pixels in said non-active area, said pixel array having a plurality of first pixels in said active area and a plurality of second pixels in said non-active area, and said mask having a plurality of apertures, i.e., apertures 32, located over and exposing at least one of said second pixels (See col. 4, line 63 – col. 5, line 61; and Figs. 3-4) .

With regard to claim 2, the imager according to claim 1, wherein said apertures of said mask are different sizes (col. 5, lines 9-10).

With regard to claim 3, the imager according to claim 2, wherein said different sized apertures expose said at least one second pixel to differing amounts of light. This feature is considered inherent because the apertures that have different sizes do in fact expose the pixels to differing amount of light (col. 5, lines 1-13, and col. 5, line 62 – col. 6, line 5).

With regard to claim 4, the imager according to claim 1, wherein said apertures of said mask are graduated such that each successive aperture is larger than one adjacent to it (which broadly reads on col. 5, lines 62-64).

With regard to claim 6, the imager according to claim 1, wherein said second pixels comprise at least one row of pixels outside said active area (See Figs. 3-4).

With regard to claim 7, the imager according to claim 1, wherein said second pixels comprise at least one column of pixels outside said active area (Which still reads on Figs. 3-4).

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With regard to claim 8, the imager according to claim 1, wherein said second pixels are a different size from said first pixels (which reads on col. 5, lines 62-64).

With regard to claim 10, the imager according to claim 1, wherein a signal from said at least one second pixel is used to determine light intensity (See for example, col. 5, lines 38-41).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torok, et al (5,489,994) in view of Dyck, et al (6,529,239).

With regard to claim 5, Torok, et al (hereinafter "Torok") discloses all of the claimed subject matter as already addressed above for claim 1, and incorporated herein by reference. Torok does not expressly call for the mask being made of a metal. However, Dyck, et al (col. 10, line 16) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Dyck, et al into the system of Torok, if for no other reason than to provide an opaque mask made of metal, and to do so would at least give higher precision in the uniformity of pixel sizes (col. 10, lines 17-18).

With regard to claim 9, the imager according to claim 1, wherein said second pixels are covered by a color filter (See col. 10, lines 14-17).

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7. Claims 11 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torok, et al (5,489,994) in view of Gough (2005/0030413).

With regard to claim 19, Torok discloses shining a light of predetermined intensity through a mask, mask 30, over an array (See for example, col. 4, lines 29-36), said array comprising an active imaging area having a plurality of first pixels (i.e., selected scanning areas. For example, the scanning of pixels areas with a number 1 which indeed makes the others non-active) and a non-active area, i.e., non-scanning areas, having a plurality of second pixels and said mask comprising varying aperture sizes over at least one of said second pixels, measuring light received at said second pixels exposed by the varying sized apertures (See col. 4, line 63 – col. 5, line 61; and Figs. 3-4); converting said measured light received from an analog to a digital signal (See item 22, in Fig. 4). Torok does not expressly call for calibrating said analog to digital conversion using the digital signal. However, Gough (See paragraph 0021; and claim 1, part “a”) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Gough into the system of Torok, and to do so would at least provide appropriate/accurate representation of the analog signals.

Claim 11 is rejected the same as claim 19. Thus, argument similar to that presented above for claim 19 is applicable to claim 11.

With regard to claim 20, the method according to claim 19, wherein said digital output from each of said second pixels is compared with an expected digital output and a voltage ramp is created from said comparison to test and calibrate analog to digital conversion (See paragraph 0013, 0020; paragraphs 0036-0039; and Figs. 2-3).

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Claims 21, 22, 23, and 24 are rejected the same as claims 6, 7, 4, and 8 respectively.

Thus, argument similar to those presented above for claims 6, 7, 4, and 8 are respectively applicable to claims 21, 22, 23, and 24.

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 5833507, 6124920, 6272207, 6667769, and 6958768.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
DANIEL G MARIAM  
Primary Examiner  
Art Unit 2624

November 6, 2006